

ABSTRACT

A system is disclosed that determines a spatial position of a tracker device relative to an object sending a return signal to the tracker. Such a system advantageously maintains phase accuracy between a forward signal from the tracker device and the return signal from the object. The system can include, as part of a tracker device, a reference signal generator, a transmitter, a receiver, and a spatial position computer. The reference signal generator is responsive to and phase-stabilized by a broadcast signal, e.g., a signal received from a commercial AM broadcast transmitter. The transmitter and receiver are both coupled to and phase-stabilized by the tracker reference signal generator. Variations and methods with different advantageous features are also described.